Figure 1a. LCMS analysis of recombinant peptide variants

(A) MM-416776

(B) MD-915

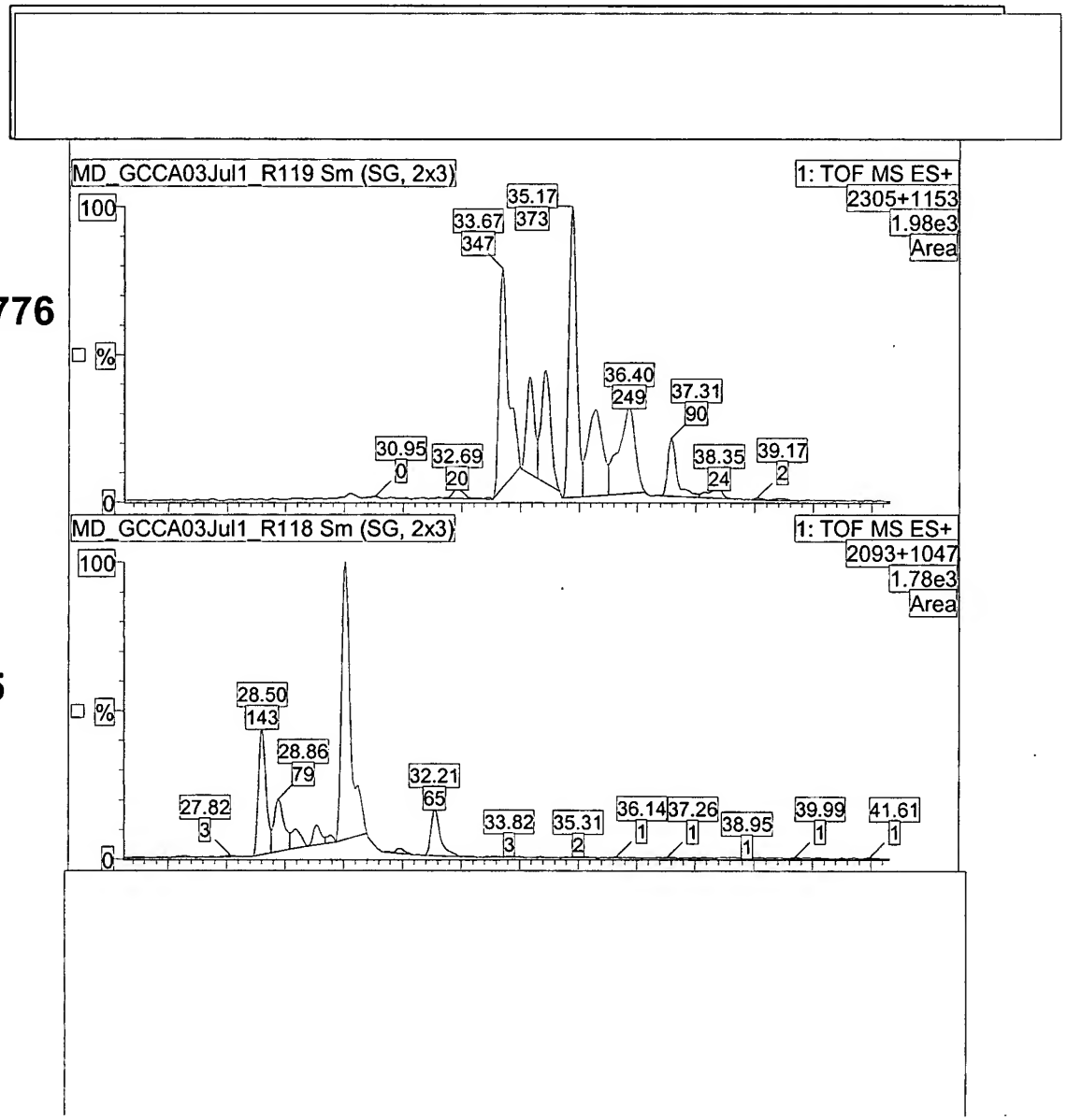


Figure 1b: LCMS analysis of synthetic MD-1100 (Total Ion Chromatograph (TIC))

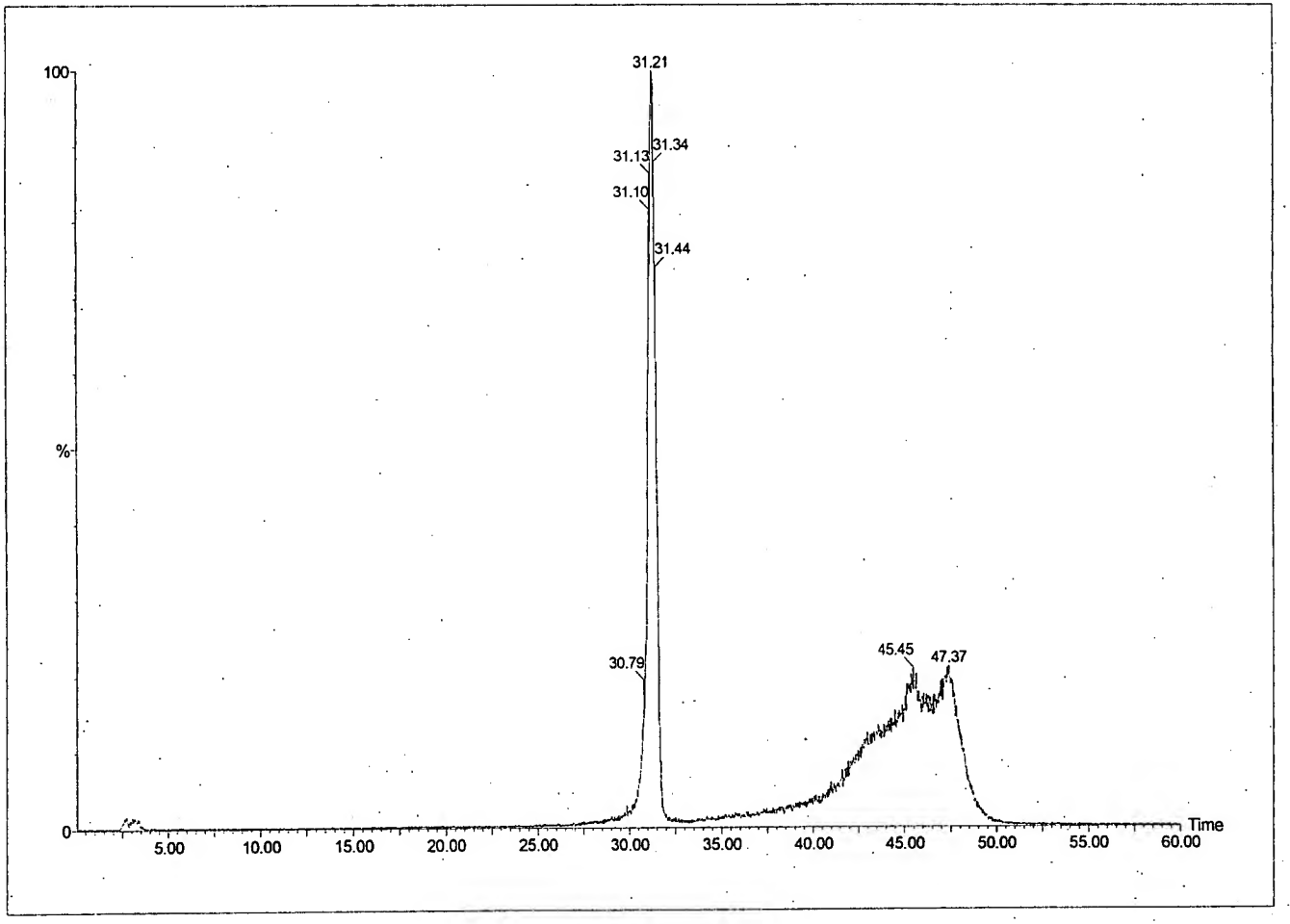


Figure 1c: LCMS analysis (Total Ion Chromatograph of blank used in MD-1100 analysis)

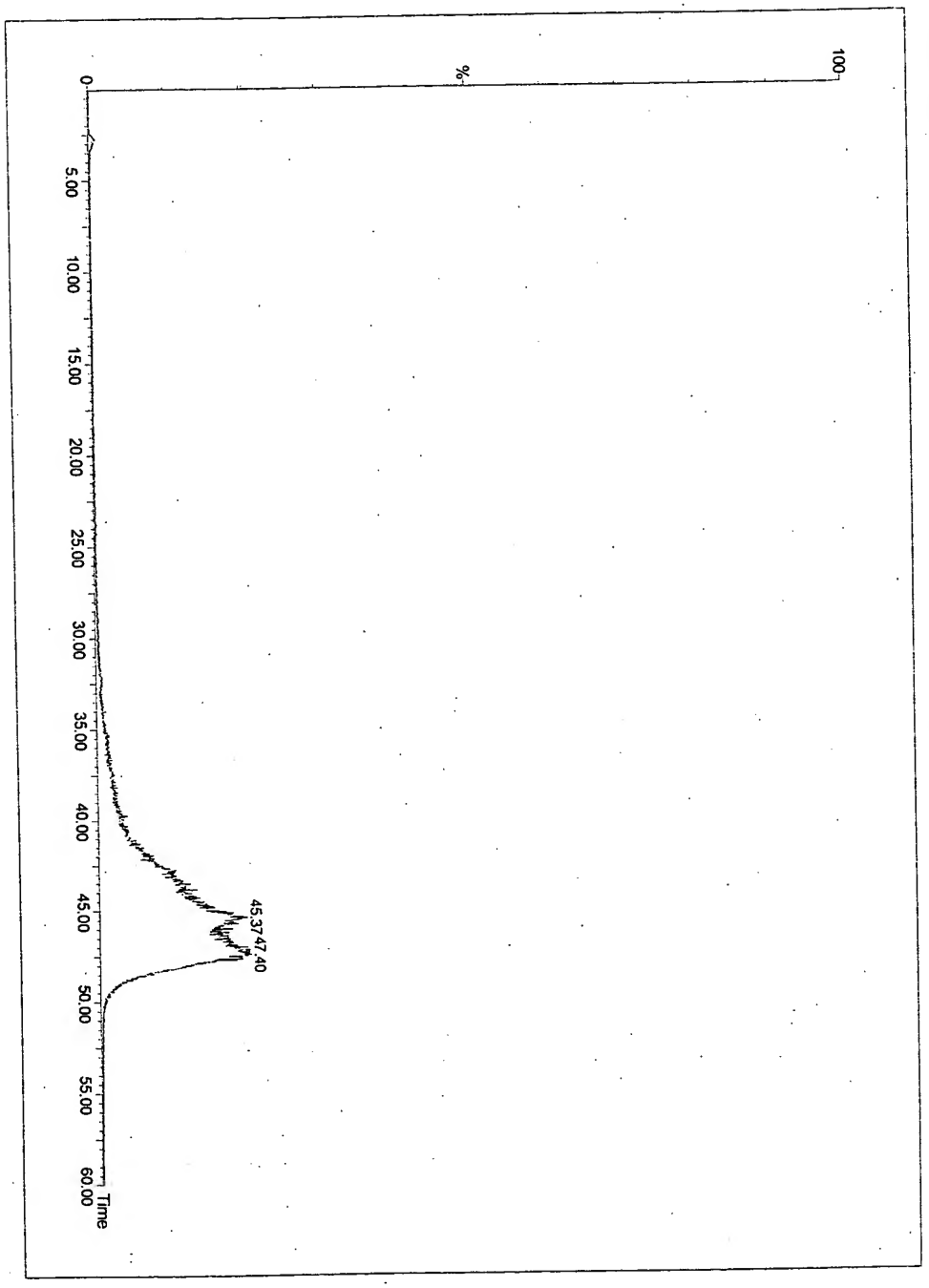


Figure 2. Chemically synthesized peptides in the Intestinal GC-C Receptor Activity Assay

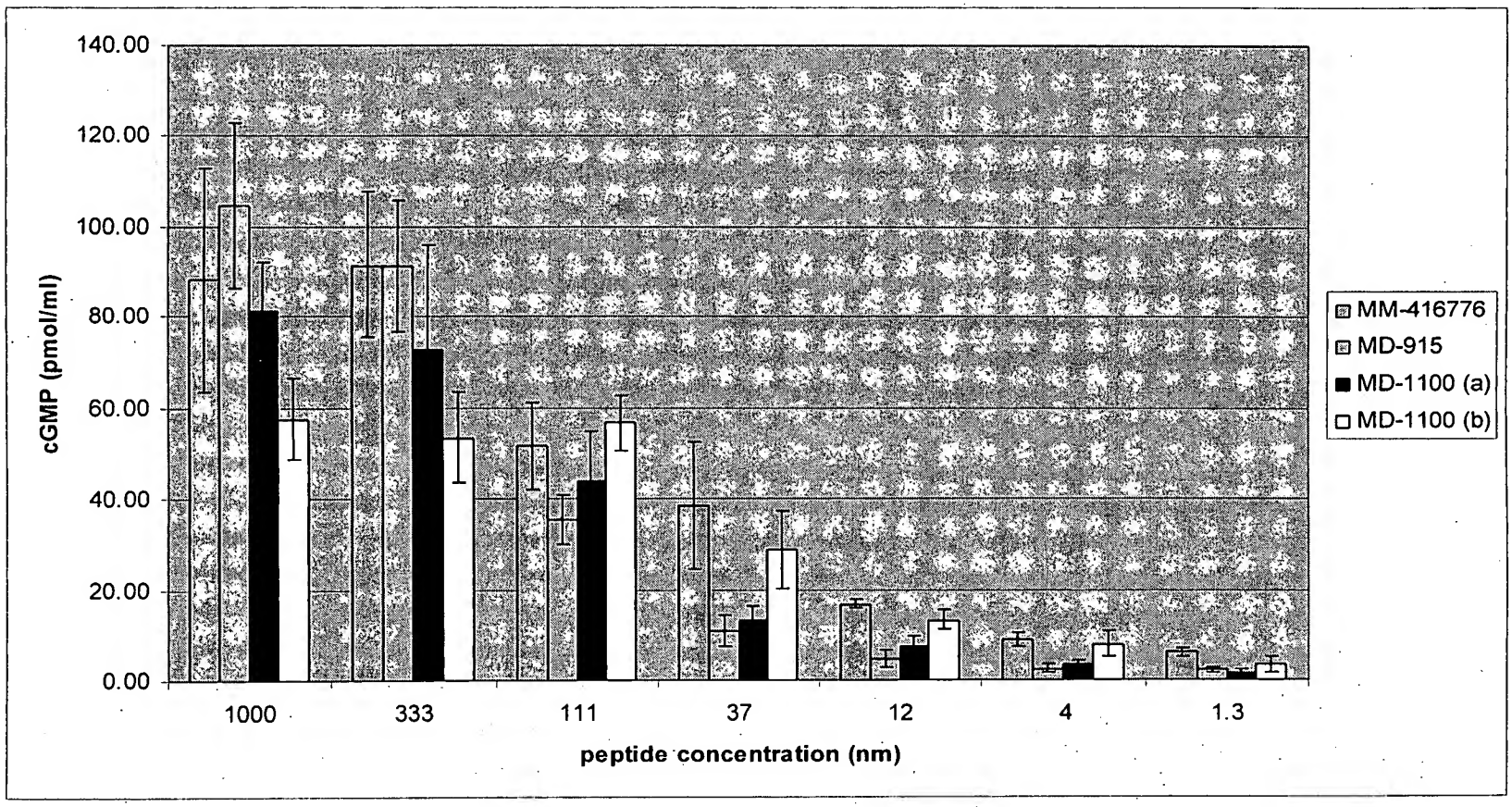


Figure 3a. MM-416776 vs Zelnorm® in an acute Mouse Gastrointestinal Transit Model (GIT)

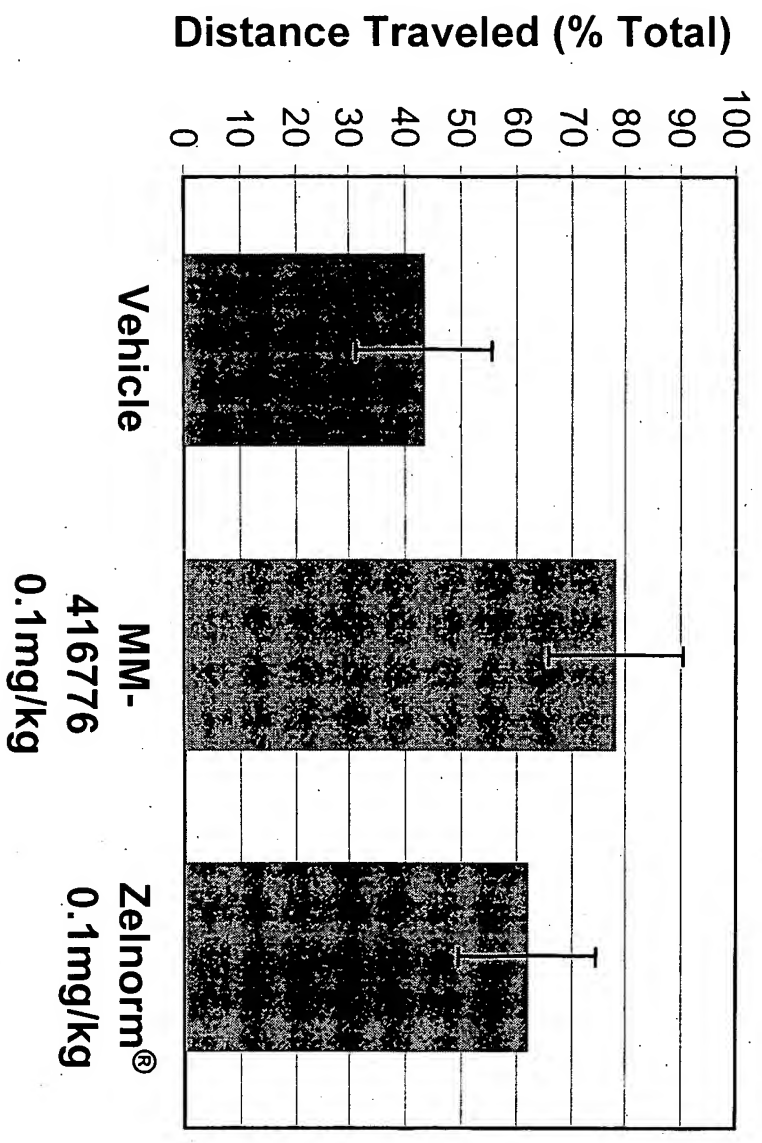
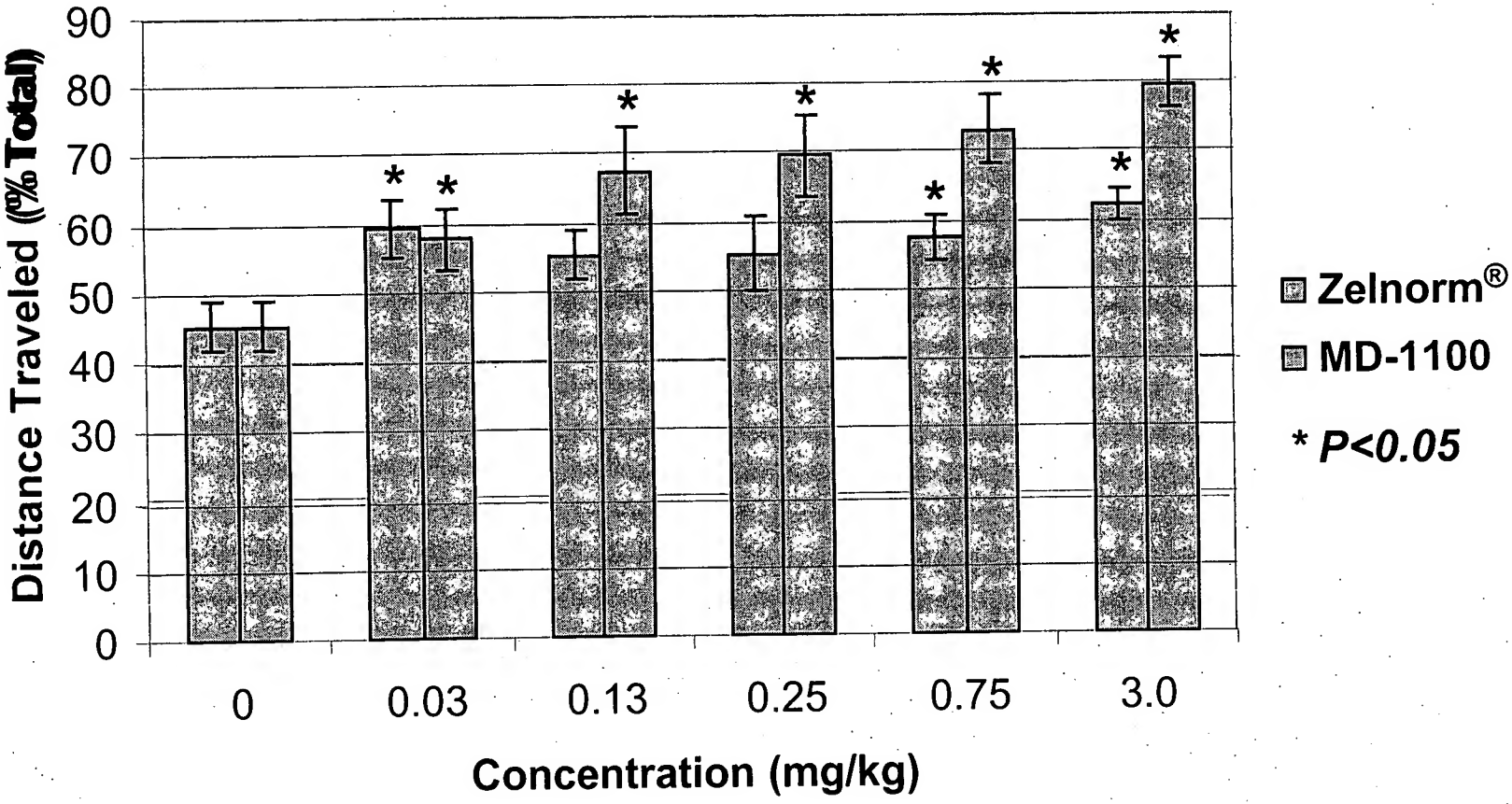


Figure 3b: MD-1100 vs. Zelnorm® in an acute Mouse Gastrointestinal Transit Model



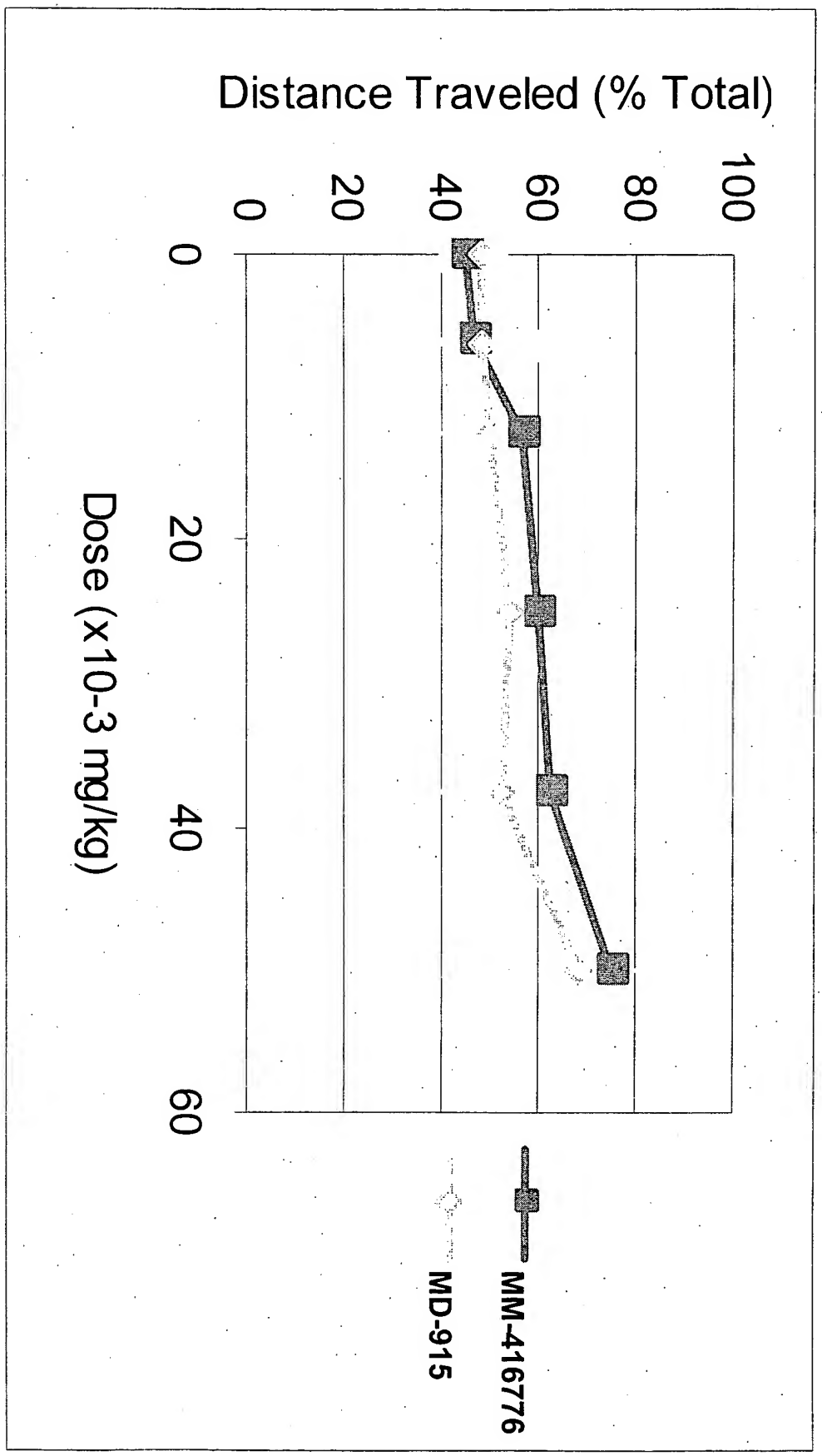


Figure 4a. Purified MD-915 and MM-416776 in GIT Model

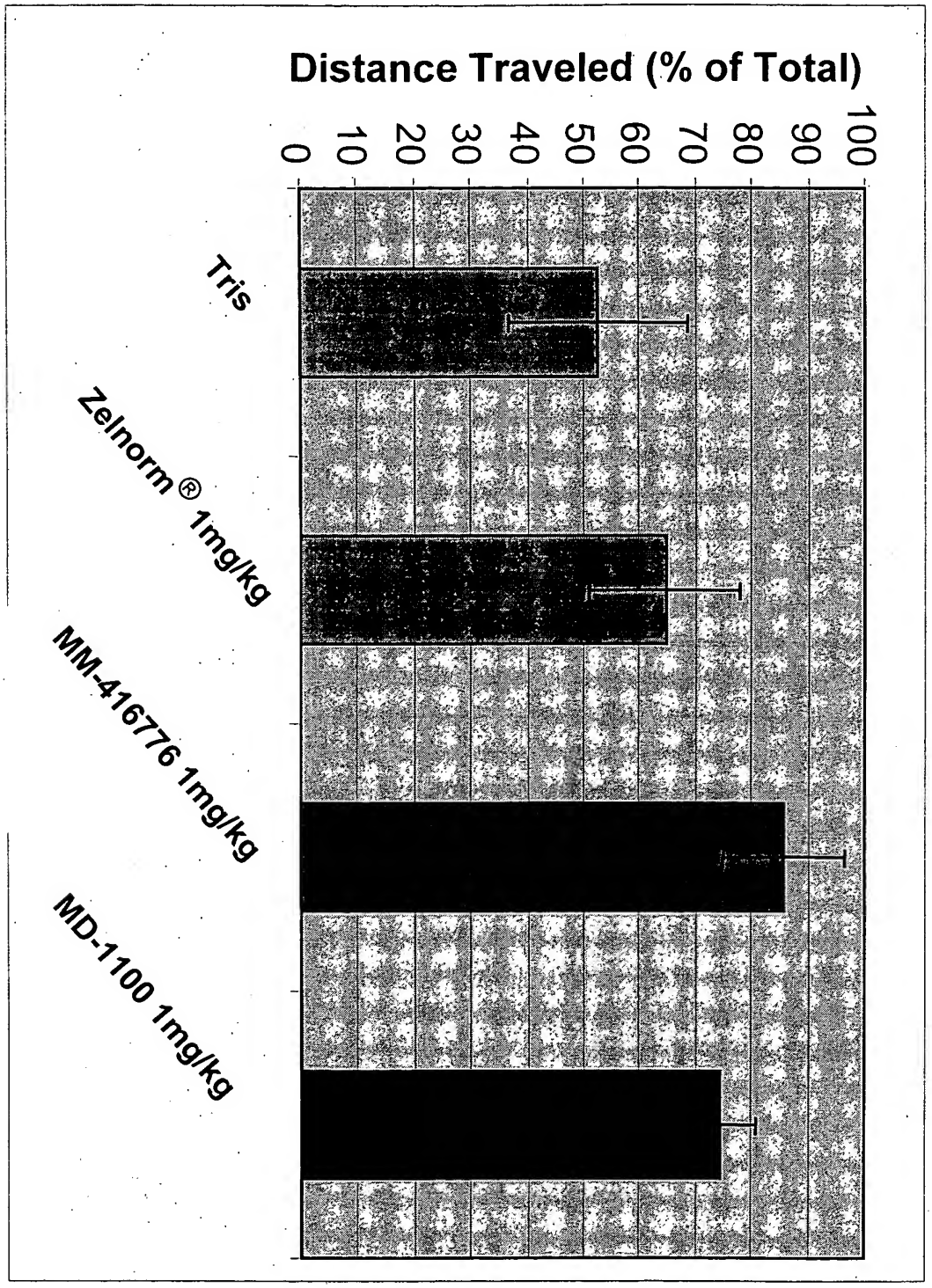


Figure 4b. Chemically Synthesized Peptides in GIT Model

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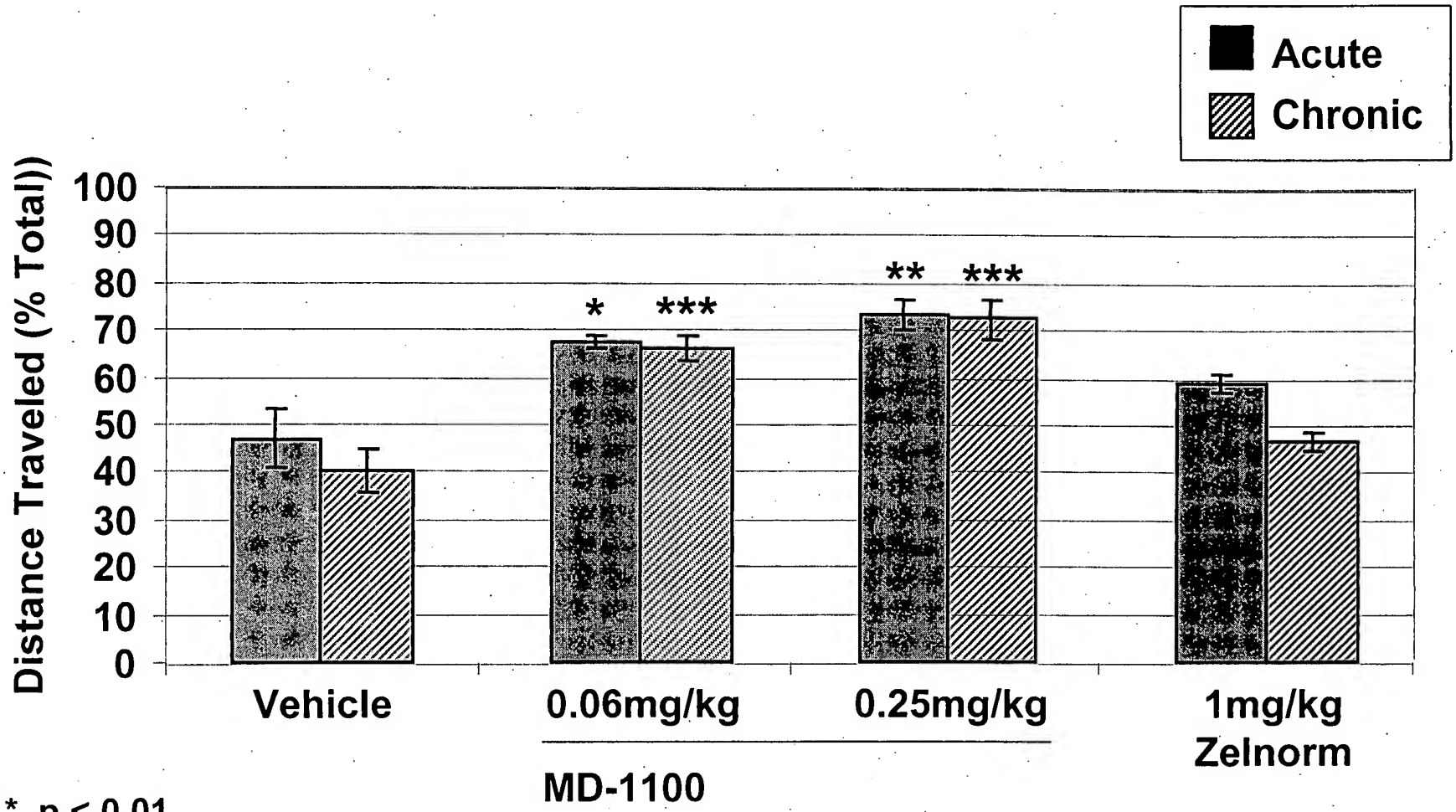
Figure 4c. Chronic vs. Acute Dosing in GIT Assay



* p < 0.01
** p < 0.005
*** p < 0.0005

Figure 5a. MM-416776 vs Zelnorm® in a Mouse Intestinal Secretion Model

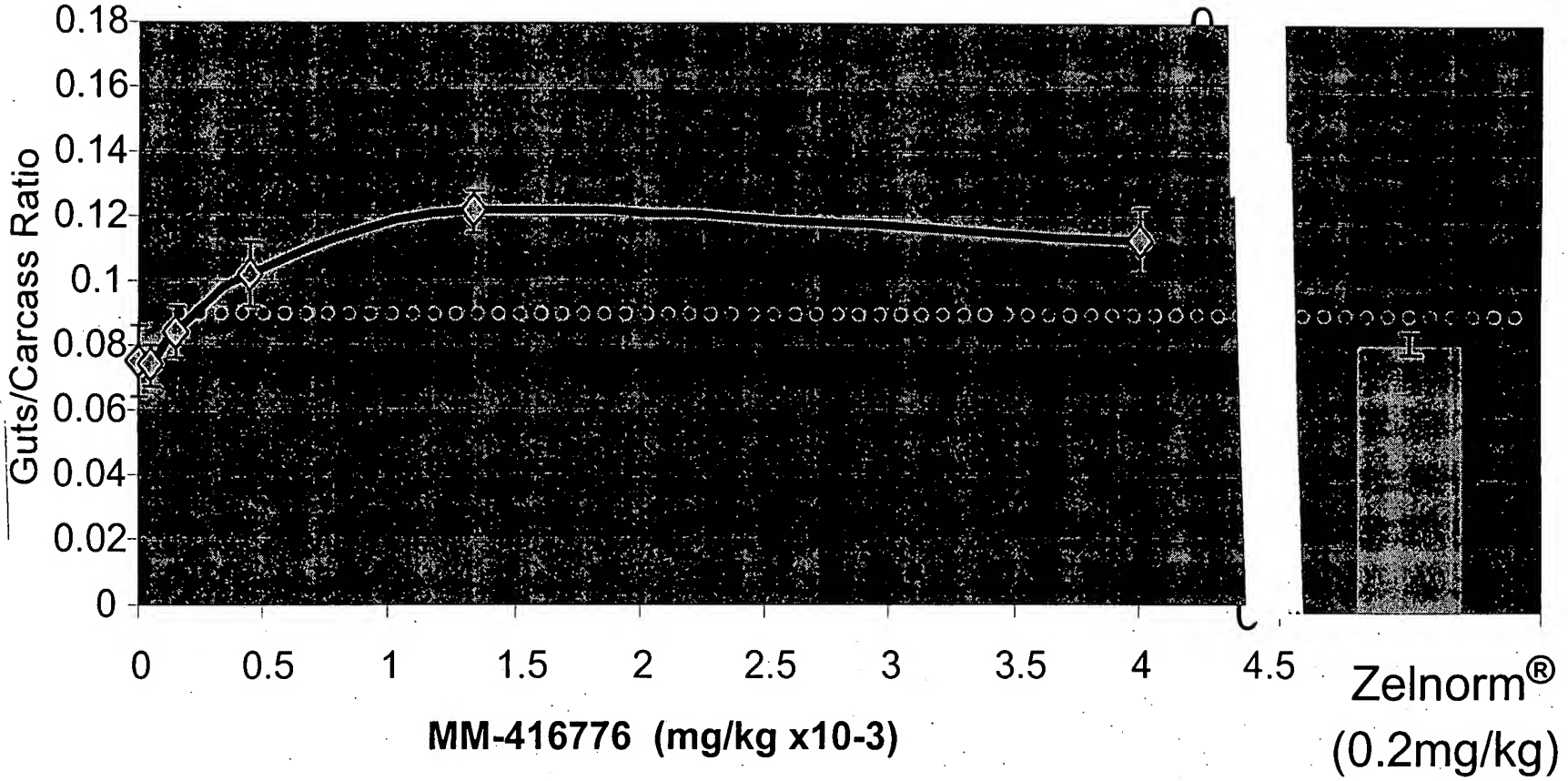


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Figure 5b: MD-1100 vs Zelnorm® in Mouse Intestinal Secretion Model

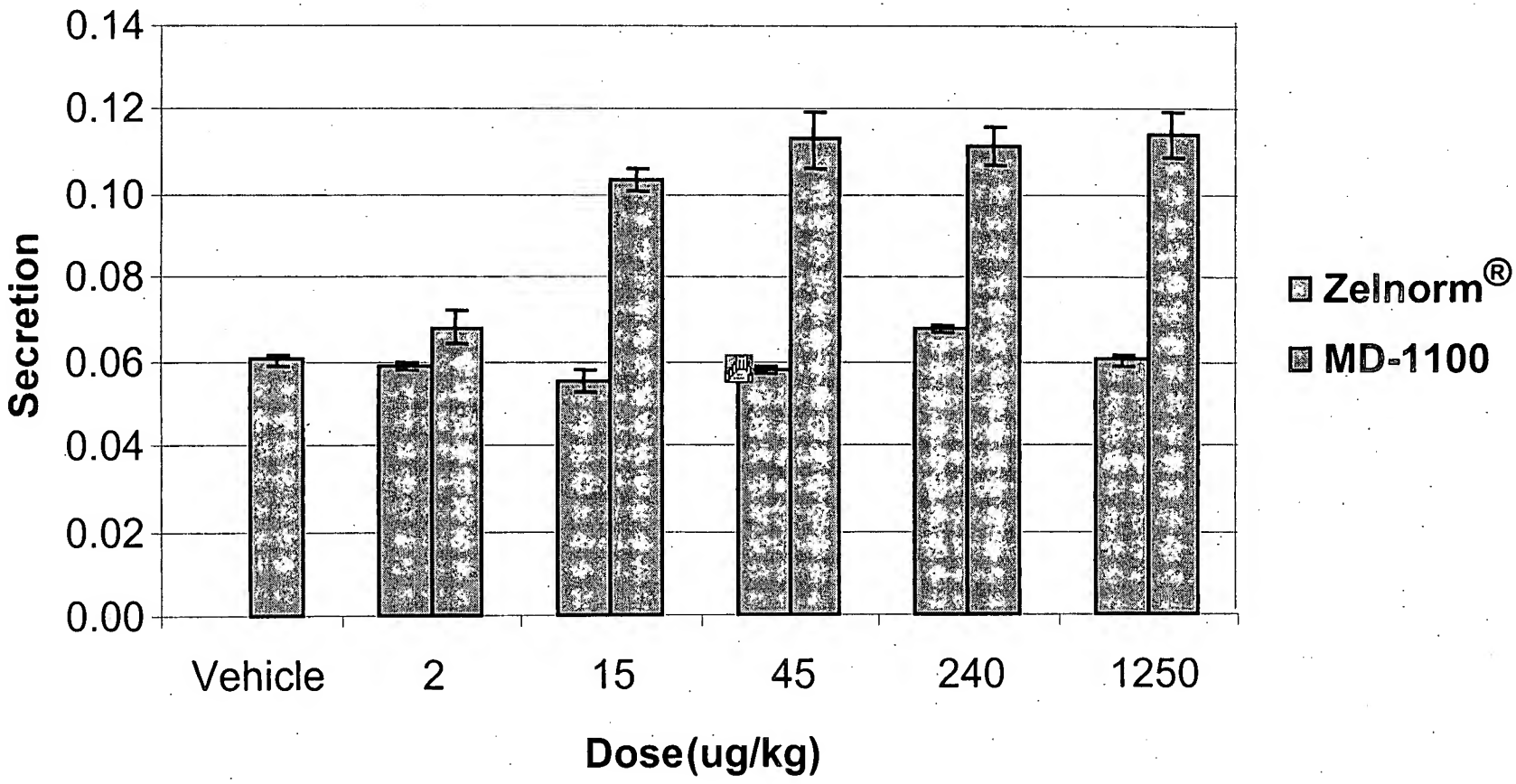

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Figure 6a. Recombinantly generated MD-915 and MM-416776 in Mouse Intestinal Secretion Model

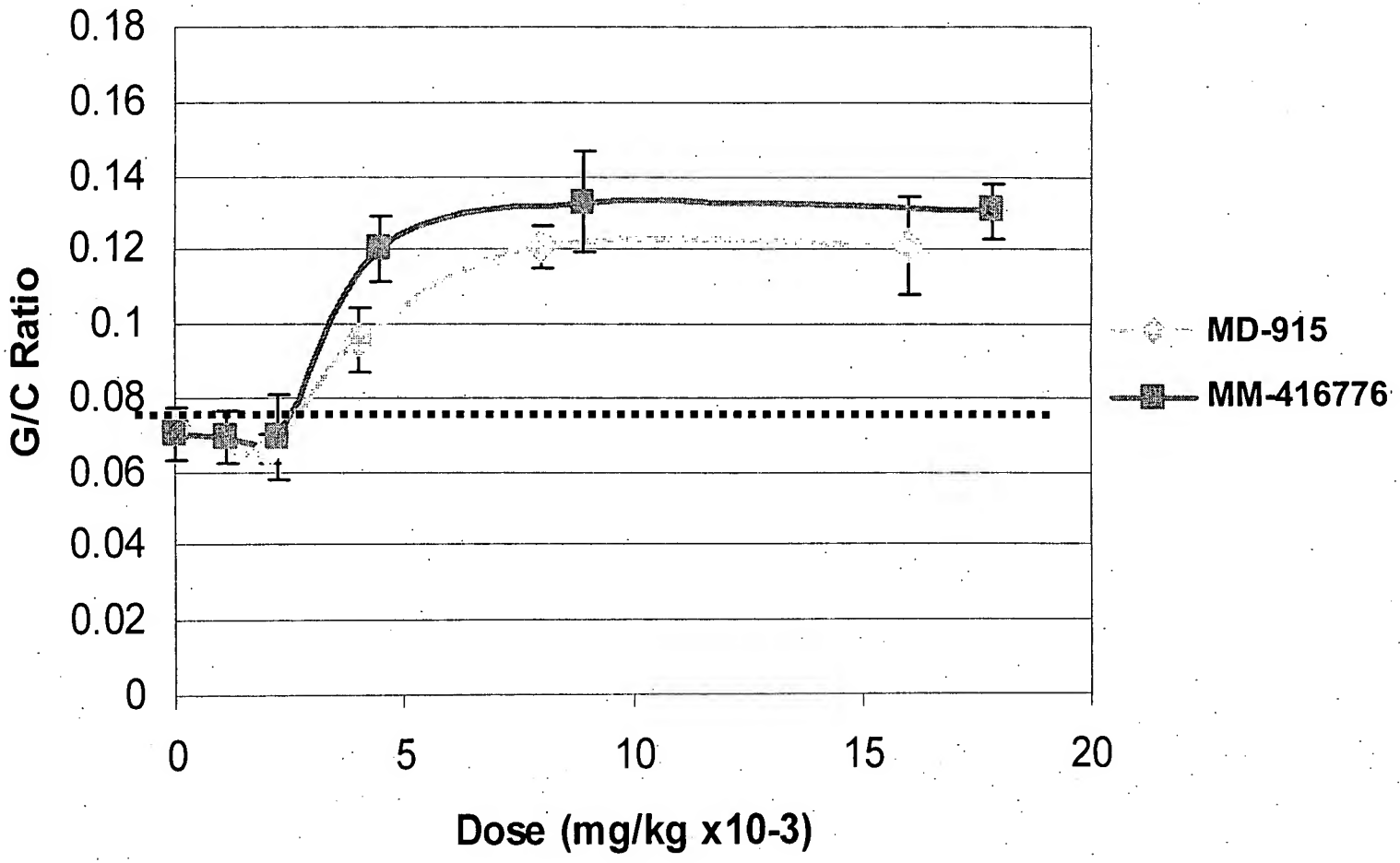


Figure 6b. Chemically synthesized peptides in Mouse Intestinal Secretion Model

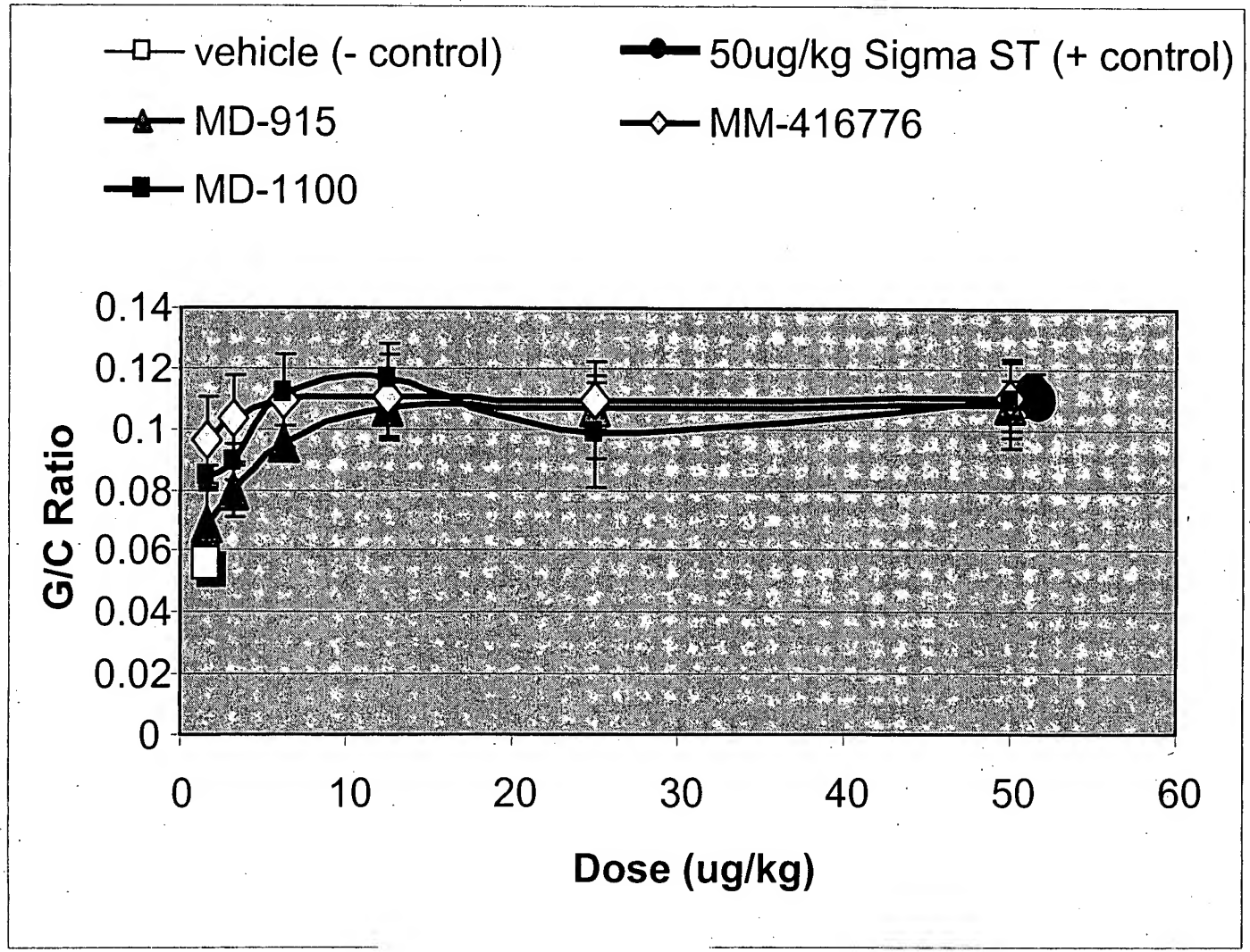
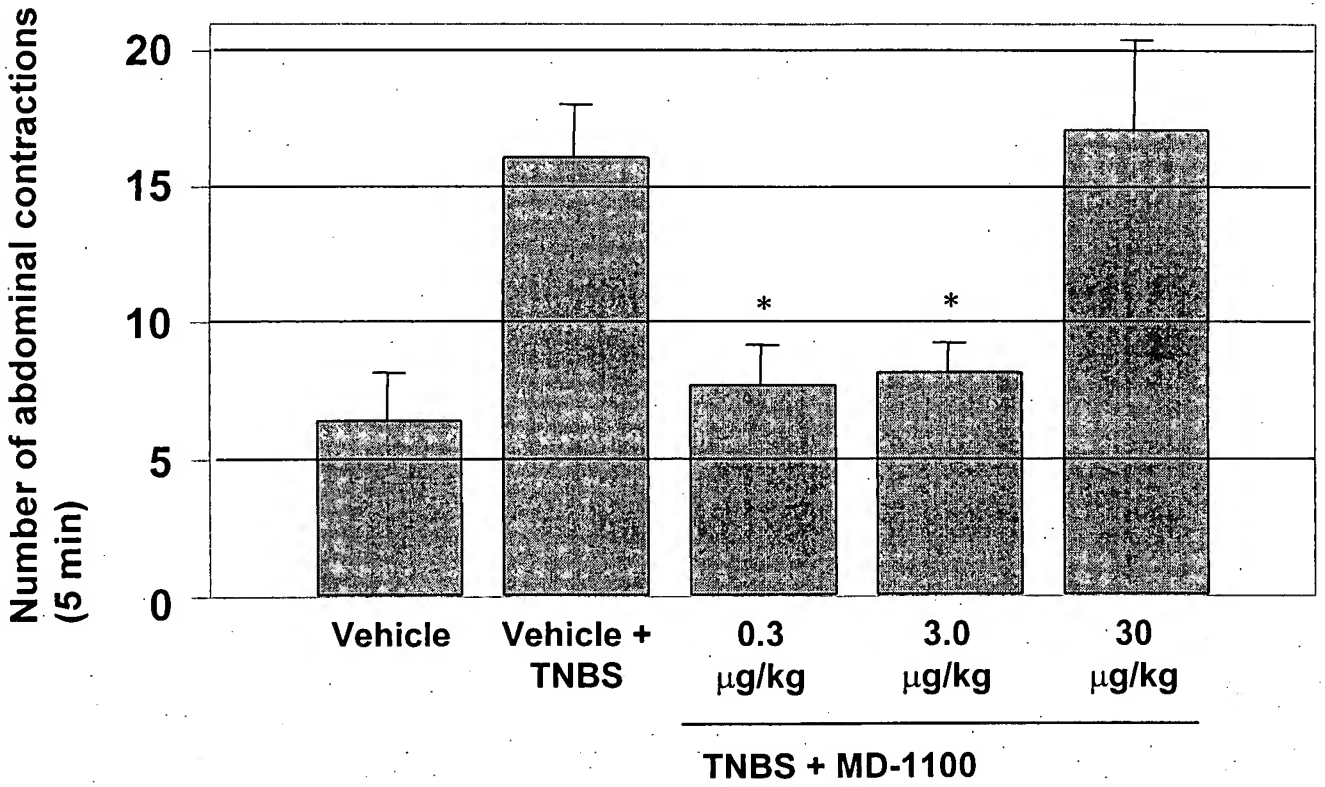


Figure 7: Effect of MD-1100 on pain in a rat TNBS Colorectal Distention Assay



* p<0.05 as compared to "vehicle" value

Figure 8a: Visceral Antinociceptive Effects of MD-915 in a Mouse Writhing Assay

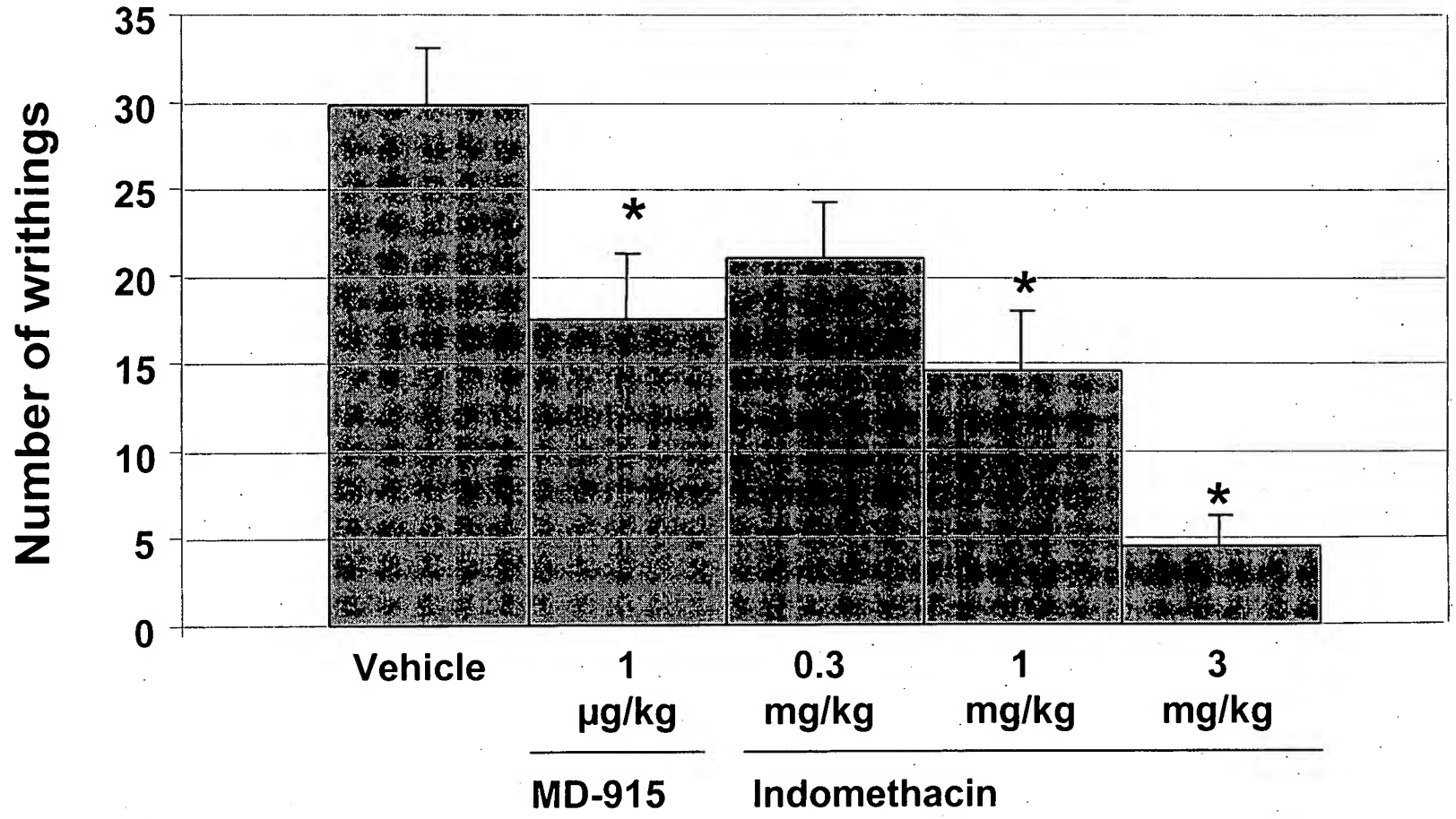


Figure 8b: Visceral Antinociceptive Effects of MD-1100 in a Mouse Writhing Assay

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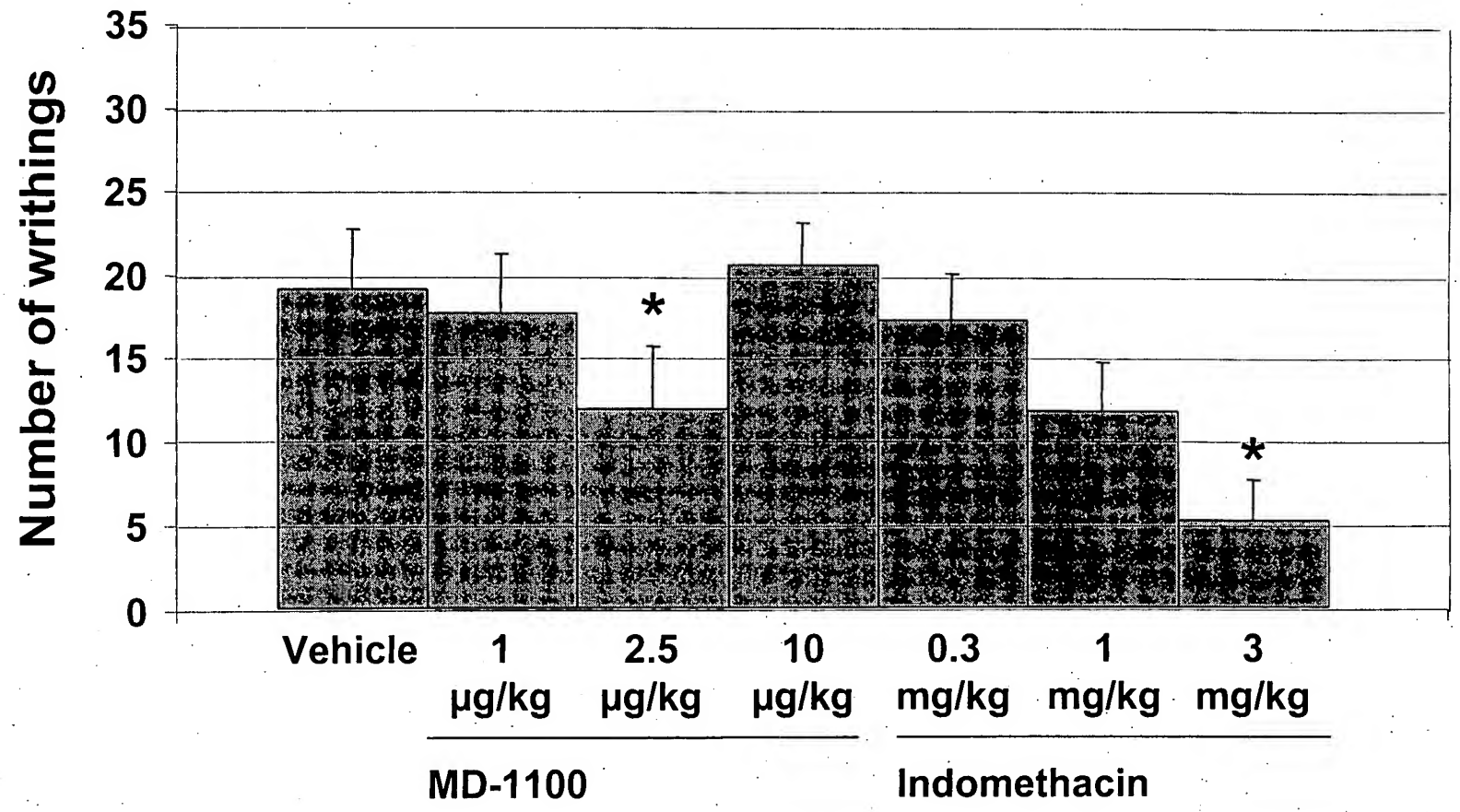


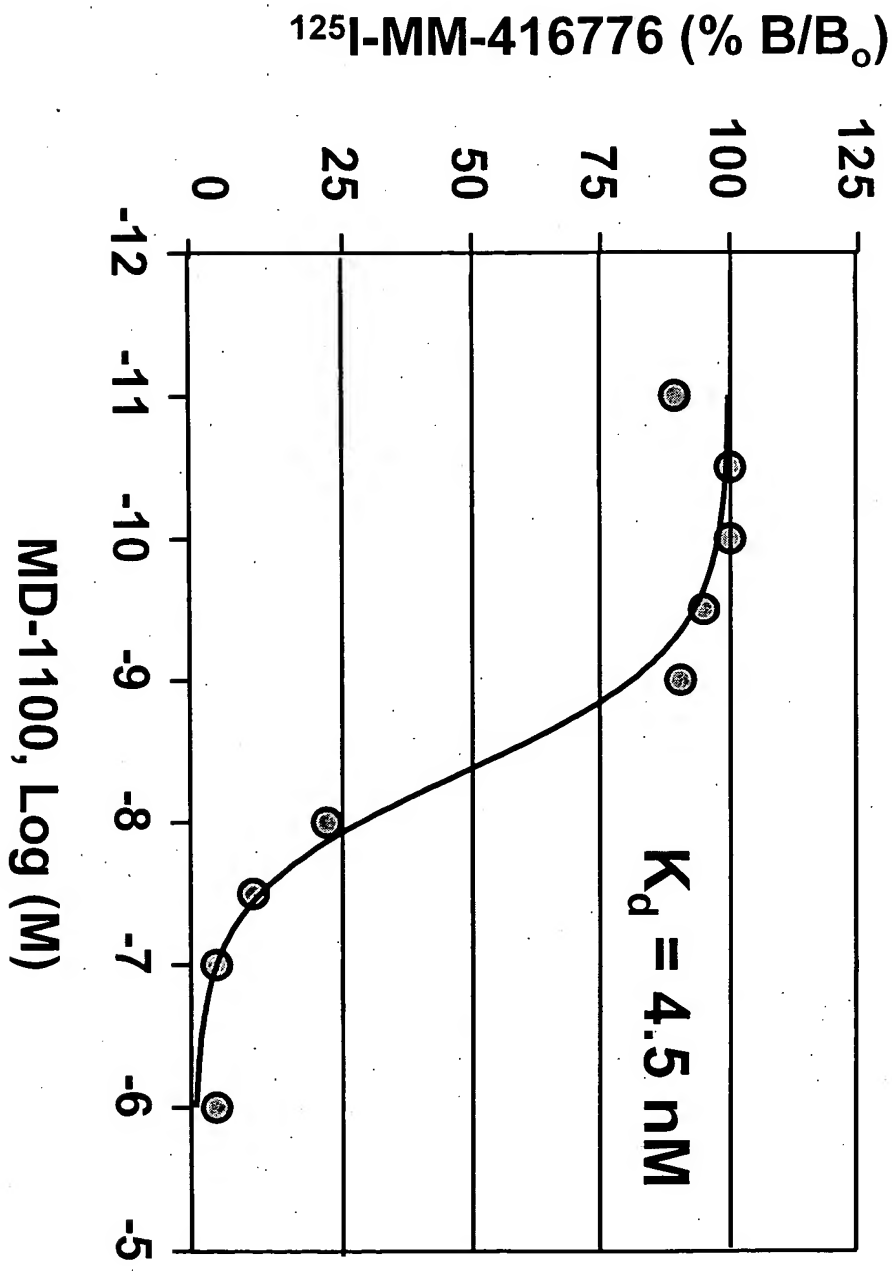
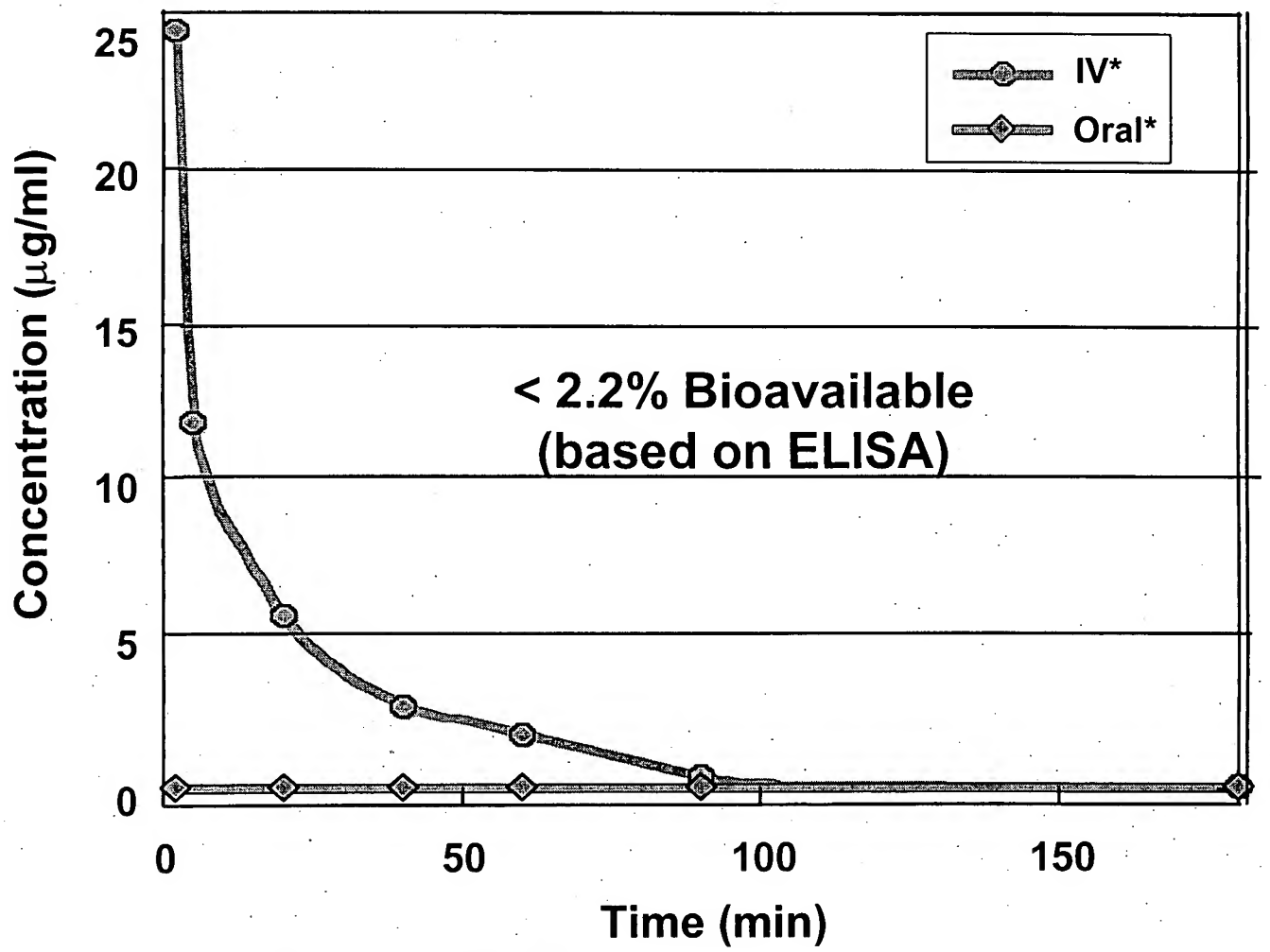


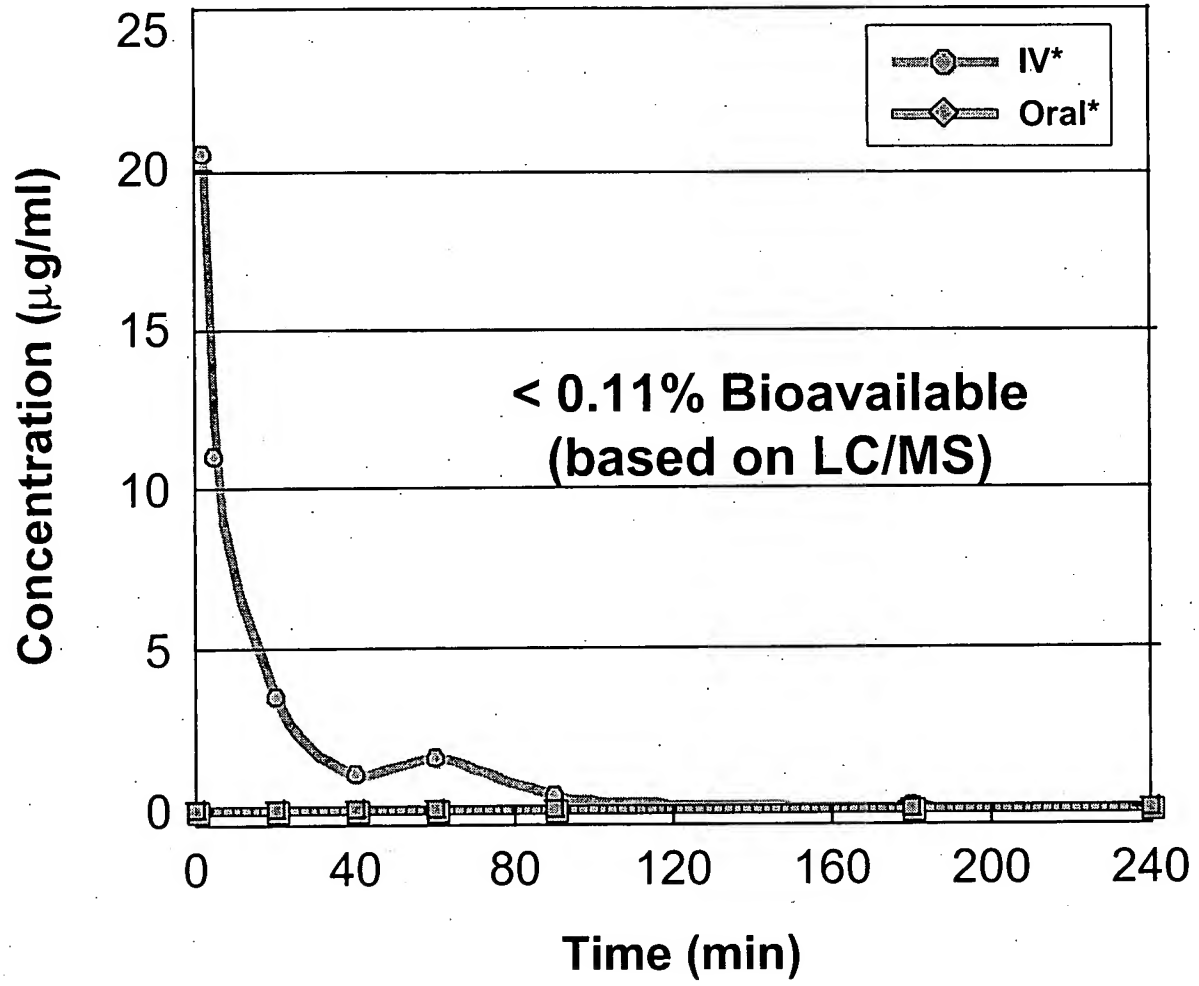
Figure 9: Competitive Radioligand Binding of MD-1100

Figure 10a: Minimum Systemic Absorption of MD-1100 (based on ELISA)



* Limit of detection 0.061 μg/ml (40 nM)
Dosing at 10 mg/kg

Figure 10b: Minimum Systemic Absorption of MD-1100 (based on LC/MS)



- Limit of detection 0.00063 μg/mL (0.6 nM)
- Dosing at 10 mg/kg